

Claims

1.-6. (canceled)

7. (new) A process absorption spectrometer comprising:

a first unit containing a source of radiation; and

at least one second unit containing a detector, wherein the first and the second units are designed as field devices and are connectable to a field bus.

8. (new) The process absorption spectrometer according to claim 7, wherein the second unit comprises a mechanism to generate a measurement result from measurement signals of the detector and from signals transmitted from the first unit to the second unit.

9. (new) The process absorption spectrometer according to claim 8, wherein the signals are at least partially transmittable via the field bus.

10. (new) The process absorption spectrometer according to claim 9, wherein the first and the second units are designed to communicate with one another via the field bus according to a slave-slave transmission method.

11. (new) The process absorption spectrometer according to claim 7, wherein the source of radiation is modulated with at least one part of signals transmitted from the first unit to the second unit, and wherein in the second unit the signals transmitted from the first unit to the second unit are separated from measurement signals of the detector by demodulation.

12. (new) The process absorption spectrometer according to claim 8, wherein the source of radiation is modulated with at least one part of signals transmitted from the first unit to the second unit, and wherein in the second unit the signals transmitted from the first unit to the second unit are separated from measurement signals of the detector using demodulation.

13. (new) The process absorption spectrometer according to claim 9, wherein the source of radiation is modulated with at least one part of signals transmitted from the first unit to the second unit, and wherein in the second unit the signals transmitted from the first unit to the second unit are separated from measurement signals of the detector by using demodulation.

14. (new) The process absorption spectrometer according to claim 10, wherein the source of radiation is modulated with at least one part of signals transmitted from the first unit to the second unit, and wherein in the second unit the signals transmitted from the first unit to the second unit are separated from measurement signals of the detector by demodulation.

15. (new) The process absorption spectrometer according to claim 7, wherein the first unit comprises means for generating a measurement result from measurement signals of the detector, and wherein the measurement signals are transmittable from the second unit to the first unit via the field bus.

16. (new) The process absorption spectrometer according to claim 8, wherein the first unit comprises means for generating a measurement result from measurement signals of the detector, and

wherein the measurement signals are transmittable from the second unit to the first unit via the field bus.

17. (new) The process absorption spectrometer according to claim 9, wherein the first unit comprises means for generating a measurement result from measurement signals of the detector, and wherein the measurement signals are transmittable from the second unit to the first unit via the field bus.

18. (new) The process absorption spectrometer according to claim 10, wherein the first unit comprises means for generating a measurement result from measurement signals of the detector, and wherein the measurement signals are transmittable from the second unit to the first unit via the field bus.

19. (new) The process absorption spectrometer according to claim 11, wherein the first unit comprises means for generating a measurement result from measurement signals of the detector, and wherein the measurement signals are transmittable from the second unit to the first unit via the field bus.

20. (new) A process absorption spectrometer with a unit containing a source of radiation and at least one additional unit containing a detector, with both units being designed as pieces of field equipment and being connected to a field bus.

21. (new) The process absorption spectrometer according to claim 20, wherein the additional unit containing the detector contains means to generate a measurement result from measurement signals of the detector and additional signals which are transmitted from

the unit containing the source of radiation to the additional unit containing the detector.

22. (new) The process absorption spectrometer according to claim 21, wherein the additional signals are at least partially transmitted via the field bus.

23. (new) The process absorption spectrometer according to claim 22, wherein the two units communicate with one another via the field bus according to a slave-slave transmission method.

24. (new) The process absorption spectrometer according to claim 20, wherein the source of radiation is modulated with at least one part of additional signals, and wherein in the additional unit the additional signals are separated from measurement signals of the detector by means of demodulation.

25. (new) The process absorption spectrometer according to claim 20, wherein the unit containing the source of radiation contains means for generating a measurement result from measurement signals of the detector, and wherein the measurement signals are transmitted from the additional unit to the unit containing the source of radiation using the field bus.